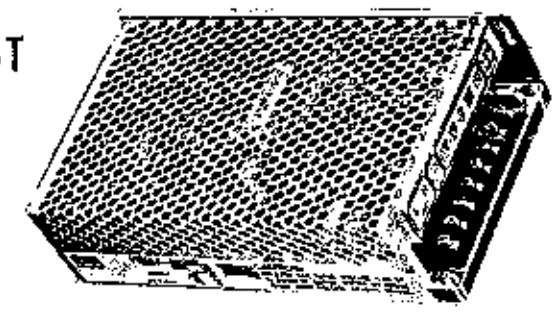
MEAN WELL
SWITCHING POWER SUPPLY

Q-120 SERIES

- LOW COST, HIGH RELIABILITY
- 105℃ OUTPUT CAPACITOR
- INTERNATIONAL AC INPUT RANGE
- BUILT IN EMI FILTER, LOW RIPPLE NOISE
- HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- SHORT CIRCUIT, OVERLOAD, OVERVOLTAGE PROTECTED
- COMPACT SIZE, LIGHT WEIGHT
- 100% FULL LOAD BURN-IN TEST

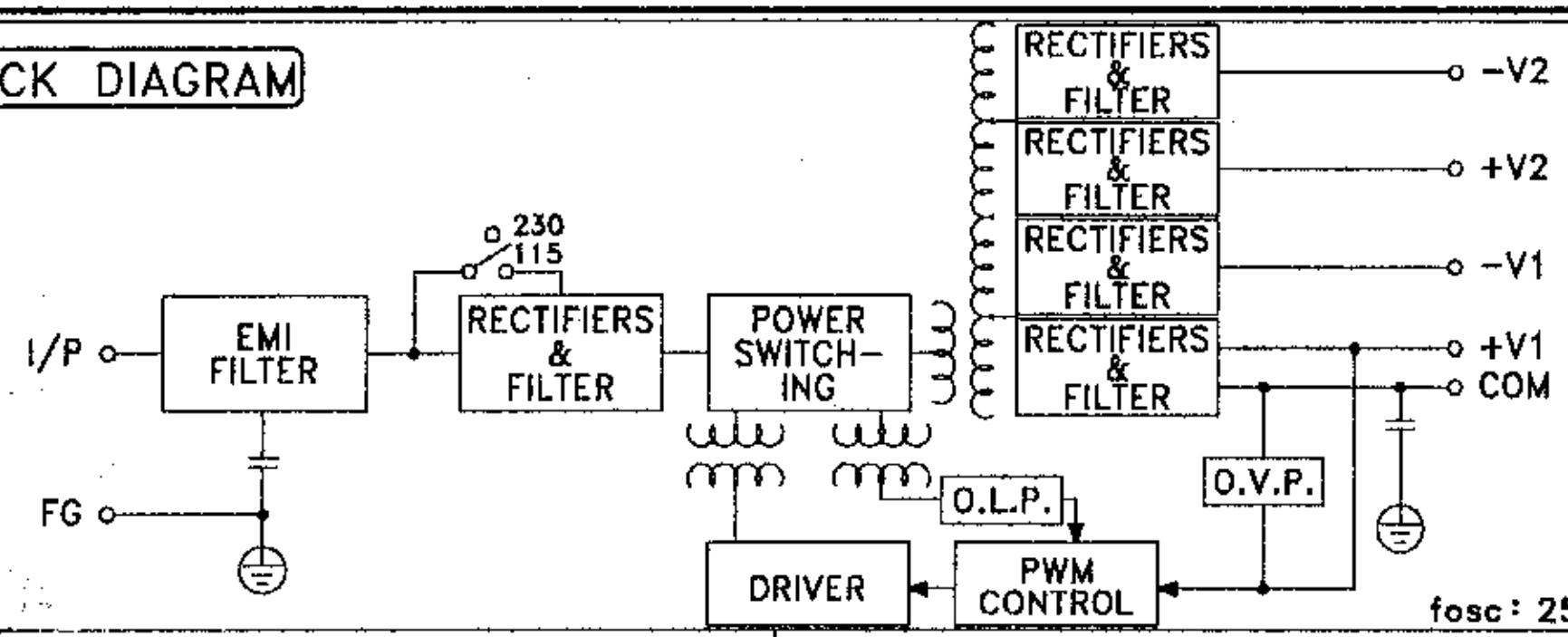


MODEL / SPECIFICATION	Q-120B				Q-120C				Q-120D			
	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
DC OUTPUT VOLTAGE	5V	12V	-5V	-12V	5V	15V	-5V	-15V	5V	12V	24V	-12V
OUTPUT V. TOLERANCE	±2%	±6%	±6%	±6%	±2%	+10,-5%	±6%	+10,-5%	±2%	±6%	±6%	±6%
OUTPUT RATED CURRENT	11A	4A	1A	1A	10A	3.5A	1A	1A	8A	2A	2A	1A
OUTPUT CURRENT RANGE	2-12A	0.5-5A	0.2-1A	0.2-1A	2-12A	0.5-5A	0.2-1A	0.2-1A	2-12A	0.2-5A	0.2-2A	0.2-1A
RIPPLE & NOISE (p-p)	80mV	120mV	80mV	120mV	80mV	150mV	80mV	150mV	80mV	120mV	80mV	120mV
LINE REGULATION	±0.5%	±1%	±1%	±1%	±0.5%	±1%	±1%	±1%	±0.5%	±1%	±1%	±1%
LOAD REGULATION	±0.5%	±5%	±5%	±5%	±0.5%	±6%	±5%	±6%	±0.5%	±5%	±5%	±5%
DC OUTPUT POWER	120W				122.5W				124W			
EFFICIENCY	77%				76%				80%			
DC VOLTAGE ADJ.	CH1:+10,-5%				CH1:+10,-5%				CH1:+10,-5%			
INPUT VOLTAGE RANGE	88～132VAC / 176～264VAC SELECTED BY SWITCH											
INPUT FREQUENCY	47～63Hz											
AC CURRENT	2.5A/115V 1.25A/230V											
INRUSH CURRENT	COLD START 30A											
OVERLOAD PROTECTION	105%～135% TYPE:FOLDBACK CURRENT SHUTDOWN RECOVERY:RE-POWER ON											
OVER V. PROTECTION	CH1:5.75V～6.75V											
OVER TEMP. PROTECTION	-----											
TEMP. COEFFICIENT	±0.03% / ℃											
SETUP,RISE,HOLD UP TIME	200ms, 50ms, 20ms											
WITHSTAND VOLTAGE	I/P-O/P:3KV(NOTE:7) I/P-FG:1.5KV O/P-FG:0.5KV 1min.											
WORKING TEMP.,HUMIDITY	-10℃～+60℃, 20%～90% RH (REFER TO OUTPUT DERATING CURVE)											
STORAGE TEMP.,HUMIDITY	-20℃～+85℃, 10%～95% RH											
DIMENSION	199*110*50mm CASE:906											
WEIGHT	0.85Kgs											
SAFETY	UL1012, EN60950 PENDING											
EMC	CISPR22 (EN55022) CLASS B, IEC801-2,3,4, IEC555-2 PENDING											

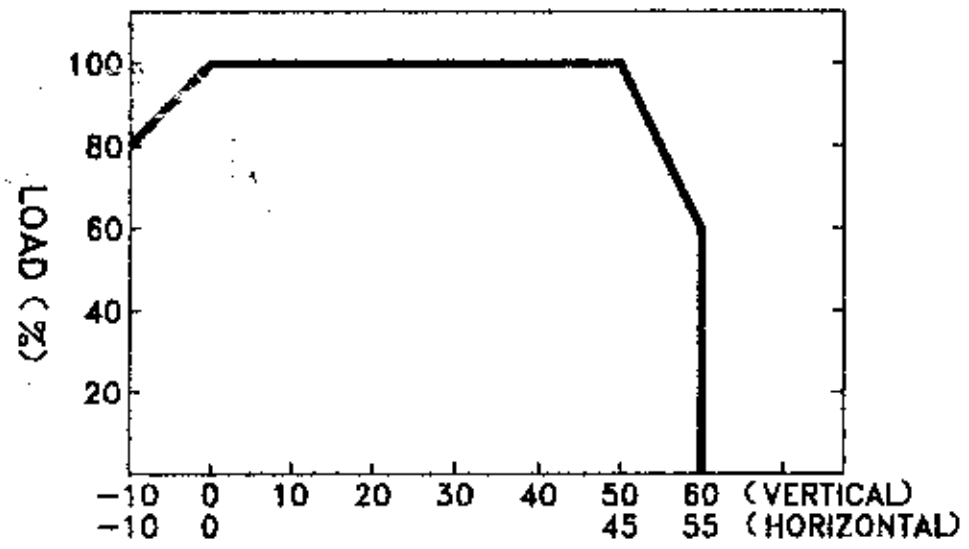
NOTE:
1. ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25℃ AMBIENT.
2. TOLERANCE : INCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION, CROSS REGULATION.
3. RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
4. LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
5. LOAD REGULATION IS MEASURED FROM 20% TO 100% RATED LOAD, AND ALL OTHER OUTPUTS AT 60% RATED LOAD.
6. EACH OUTPUT PROVIDE UP TO MAXIMUN CURRENT, BUT TOTAL LOAD CAN NOT EXCEED MAX OUTPUT POWER.
7. C2,3,11 MUST BE REMOVED.

84.10.01

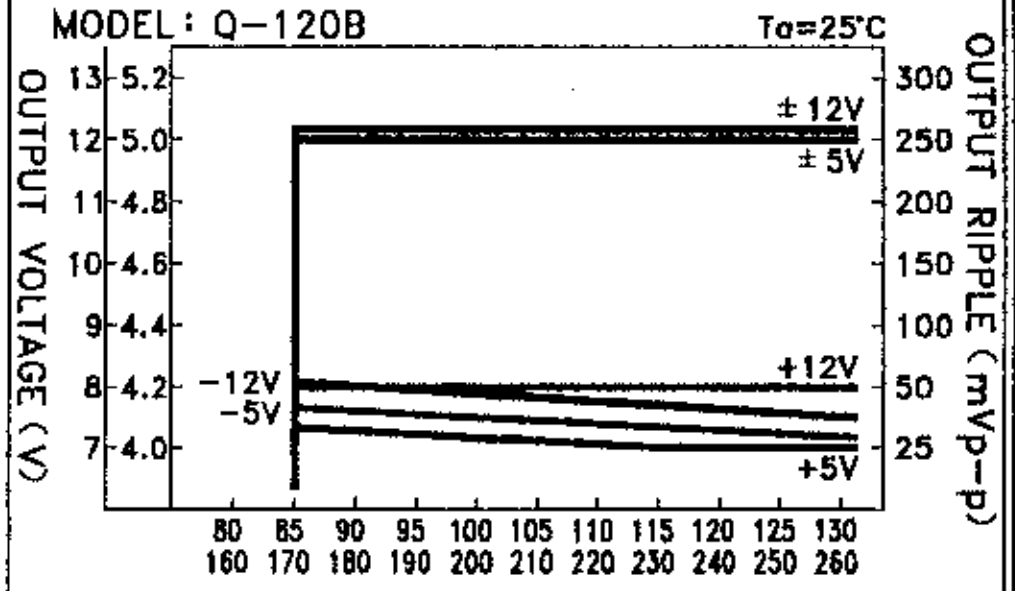
BLOCK DIAGRAM



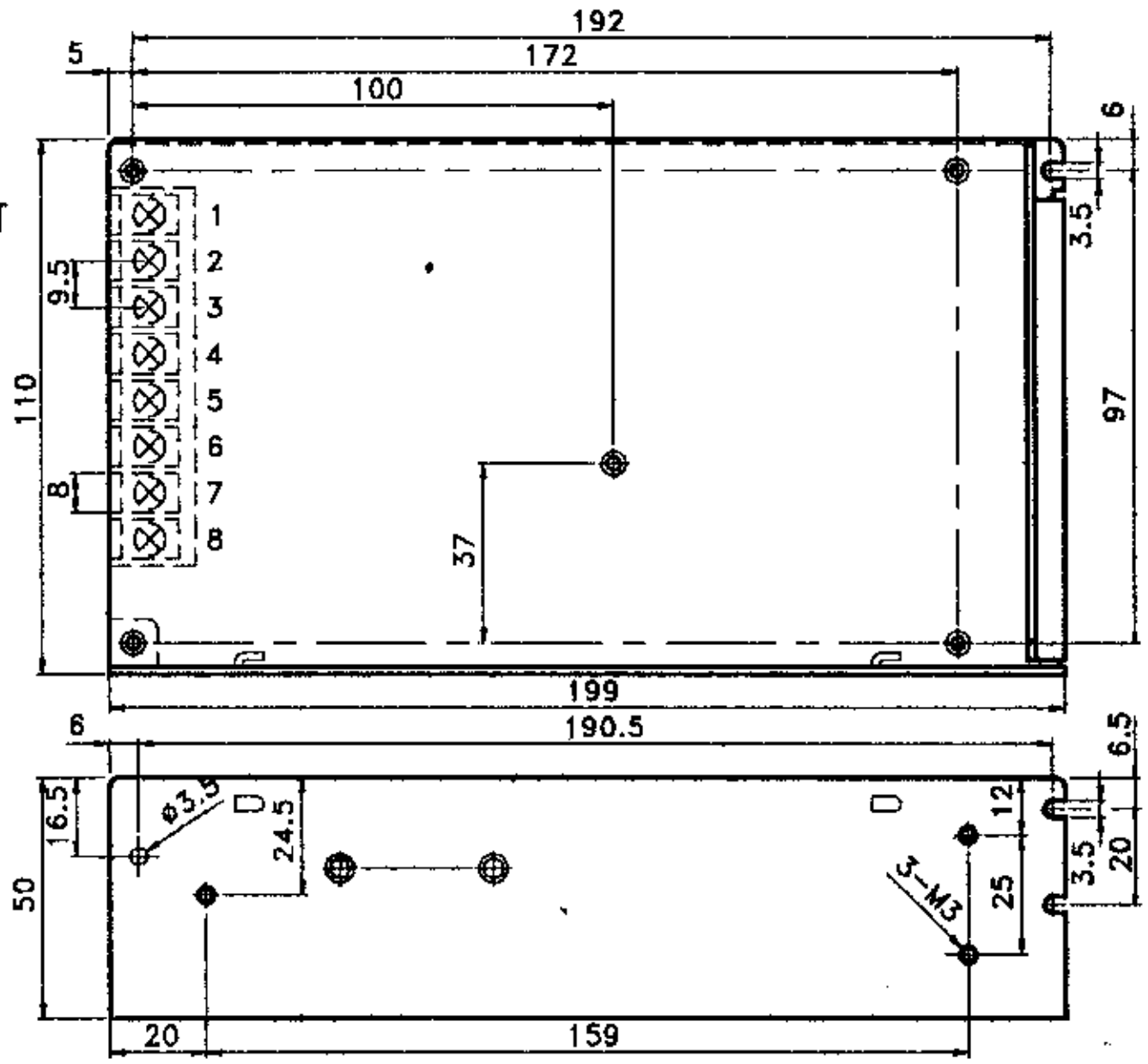
OUTPUT DERATING



STATIC CHARACTERISTICS



DIMENSION (mm)



- CASE : 906
- TERMINAL PIN NO. ASSIGNMENT
  - PIN 1,2 : AC INPUT
  - PIN 3 : FG ⏚
  - PIN 4,5 : DC OUTPUT
  - PIN 6 : DC OUTPUT -V1
  - PIN 7 : DC OUTPUT COM
  - PIN 8 : DC OUTPUT +V1

PIN NO. \ MODEL	Q-120B	Q-120C	Q-120D
4	+12V	+15V	+24V
5	-12V	-15V	+12V